

Amendments to the Claims

This listing of claims will replace all prior versions and listings of claims in the application.

Listing of Claims:

1. (Currently amended) A method of treating a food product to reduce microbial burden, comprising:

contacting the food product with an antimicrobial agent, the antimicrobial agent comprising peroxycarboxylic acid, fatty acid, halogen containing antimicrobial agent, quaternary ammonium antimicrobial agent, peroxide, condensed phosphate, or mixtures thereof; and

irradiating the food product, wherein said irradiation step comprises at least one of:

(i) irradiating the food product with less than about 0.5 kGy, wherein the food product is at least one of pork, fresh vegetables, and fruit, fresh red meat, or frozen red meat, or;

(ii) irradiating the food product with less than about 0.3 kGy1.5 kGy, wherein the food product is at least one of fresh poultry, frozen poultry, orand eggs in their shell; and with less than about 5 kGy, wherein the food product is at least one of food additives and food ingredients;

with less than about 10 kGy, wherein the food product is at least one of poultry feed; or

with less than about 15 kGy, wherein the food product is at least one of spices, dried vegetable seasonings, and herb; and significantly reducing the microbial population reducing a microbial content of said food product by at least about 0.3 log₁₀.

2. (Original) The method of claim 1, further comprising packaging the food product before irradiation.

3. (Original) The method of claim 1, further comprising washing a food contact surface with an antimicrobial agent.

4 - 7. (Cancelled)

8. (Original) The method of claim 1, wherein the antimicrobial agent comprises a peroxycarboxylic acid.

9. (Original) The method of claim 8, wherein the peroxycarboxylic acid comprises peroxyacetic acid.

10. (Previously Presented) The method of claim 8, wherein the peroxycarboxylic acid comprises peroxyoctanoic acid.

11. (Original) The method of claim 8, wherein the antimicrobial agent comprises a densified fluid peroxycarboxylic acid composition.

12 - 13. (Cancelled)

14. (Original) The method of claim 1, wherein irradiating comprises exposing the food product to gamma-radiation, X-rays, electron beam, or a combination thereof.

15. (Original) The method of claim 14, wherein exposing the food product to gamma-radiation employs gamma-radiation produced by cobalt-60 or cesium-137.

16. (Original) The method of claim 14, wherein exposing the food product to X-rays comprises electron beam bombardment of tungsten or tantalum.

17. (Original) The method of claim 14, wherein exposing the food product to electron beam comprises single or double sided electron beam irradiation.

18 - 47. (Cancelled)

48. (New) A method of treating a food product to reduce microbial burden, comprising:
contacting the food product with an antimicrobial agent, the antimicrobial agent
comprising peroxycarboxylic acid, fatty acid, halogen containing antimicrobial agent, quaternary
ammonium antimicrobial agent, peroxide, condensed phosphate, or mixtures thereof;
irradiating the food product with less than about 1.5 kGy, wherein the food product is at
least one of spices, dried vegetable seasonings, or herb; and
reducing a microbial content of said food product by at least about $0.3 \log_{10}$.